

0570
12/1

#8

OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/888,615

DATE: 11/30/2001 P.5
TIME: 12:19:50

Input Set : A:\38602-us.app
Output Set: N:\CRF3\11212001\I888615.raw

ENTERED

```
3 <110> APPLICANT: PLOWMAN, GREGORY
4     WHYTE, DAVID
5     CAENEPEEL, SEAN
6     CHARYDCZAK, GLEN
7     MANNING, GERARD
8     SUDARSANAM, SUCHA
10 <120> TITLE OF INVENTION: NOVEL PROTEASES
12 <130> FILE REFERENCE: 038602/1214
14 <140> CURRENT APPLICATION NUMBER: 09/888,615
15 <141> CURRENT FILING DATE: 2001-06-26
17 <150> PRIOR APPLICATION NUMBER: 60/214,047
18 <151> PRIOR FILING DATE: 2000-06-26
20 <160> NUMBER OF SEQ ID NOS: 150
22 <170> SOFTWARE: PatentIn Ver. 2.1
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 948
26 <212> TYPE: DNA
27 <213> ORGANISM: Homo sapiens
29 <400> SEQUENCE: 1
30 atgaagtgtc tcgggaagcg caggggccag gcagctgctt tcttgccctt ttgctggctc 60
31 tttttgaaga ttctgcaacc ggggcacagc cacctttata acaaccgcta tgctgggtgat 120
32 aaagtgataa gattttattcc caaaacagaa gaggaagcat atgcactgaa gaaaatatcc 180
33 tatcaactta aggtggacct gtggcagccc agcagtatct cctatgtatc agagggaaca 240
34 gttactgatg tccatatccc ccaaaatggt tcccagagccc tgttagcctt cttacaggaa 300
35 gccaacatcc agtacaaggt cctcatagaa gatcttcaga aaacactgga gaagggaagc 360
36 agcttgcaca cccagagaaa ccgaagatcc ctctctggat ataattatga agttttatcac 420
37 tcccttagaag aaattcaaaa ttggatgcat catctgaata aaactcactc aggcctcatt 480
38 cacatgttct ctattggaag atcatatgag ggaagatgtc tttttatttt aaagctgggc 540
39 agacgatcac gactcaaaag agctgttttg atagactgtg gtattcatgc aagagaatgg 600
40 attggtcctg cctttttgtca gtggtttgta aaagaagctc ttctaacata taagagtgc 660
41 ccagccatga gaaaaatgct gaatcatcta tattttctata tcatgcctgt gtttaacgtc 720
42 gatggatacc atttttagttg gaccaatgat cgatttttga gaaaaacaag gtcaaggaac 780
43 tcaaggtttc gctgccgtgg agtggatgcc aatagaaact ggaaagtga gtggtgtgg 840
44 aagtttggga ccaactggga tccagatcca aaggtttctg caggttttac tctgcaaaat 900
45 atgagtccag aggactctca tgggagactc atgtttttct gtatgtga 948
48 <210> SEQ ID NO: 2
49 <211> LENGTH: 1125
50 <212> TYPE: DNA
51 <213> ORGANISM: Homo sapiens
53 <400> SEQUENCE: 2
54 atgaagcctc tgcttgaaac cctttatctt ttggggatgc tggttcctgg agggctggga 60
55 tatgatagat ccttagccca acacagacaa gagattgtgg acaagtcagt gattccatgg 120
56 agcctggaga cgtattccta taacatatac caccctatgg gagagatcta tgagtggatg 180
57 agagagatca gtgagaagta caagggaagt gtgacacagc atttcctagg agtgacctat 240
58 gagaccacc ccatgtatta tctgaagatc agccaacat ctggtaatcc caagaaaaatc 300
59 atttggatgg actgtggaat tcacgccaga gaatggattg ctctgtcttt ttgccaatgg 360
60 ttcgtcaaag aaattctaca aaaccataaa gacaactcaa gtatacgcaa gctccttagg 420
```

RAW SEQUENCE LISTING

DATE: 11/30/2001

PATENT APPLICATION: US/09/888,615

TIME: 12:19:50

Input Set : A:\38602-us.app

Output Set: N:\CRF3\11212001\I888615.raw

```

61 aacctggact tctatgtcct tccagttcct aacatagatg gttatatcta cacttggaca 480
62 actgategtc tttggaggaa atcccgttca ccccataata atggcacatg ttttgggacg 540
63 gatctcaatc gaaatttcaa tgcattcttg tgtagtattg gtgcctctag aaactgccaa 600
64 gatcaaacat tctgtgggac agggccagtg tctgaaccag agactaaagc tgttgccagc 660
65 ttcatagaga gcaagaagga tgatattttg tgcttcctga ccatgcactc ttatgggcag 720
66 ttaattctca caccttacgg ctacaccaa aataaatcaa gtaaccaccc agaaatgatt 780
67 caagttggac agaaggcagc aaatgcattg aaagcaaagt atggaaccaa ttatagagtt 840
68 ggatcgagtg cagatatttt atatgcctca tcagggtcct caagagattg ggcccgagac 900
69 attgggattc ccttctcata tacgtttgag ctgagggaca gtggaacata tgggtttgtt 960
70 ctgccagaag ctcatatcca gccacctgtg gaggagacca tggaggctgt gctgtcagtc 1020
71 ctggatgatg tgtatgcgaa acactggcac tcggacagtg ctggaagggt gacatctgcc 1080
72 actatgctgc tgggcctgct ggtgtcctgc atgtctcttc tctaa 1125
75 <210> SEQ ID NO: 3
76 <211> LENGTH: 1590
77 <212> TYPE: DNA
78 <213> ORGANISM: Homo sapiens
80 <400> SEQUENCE: 3
81 atggtgagca atgacagcca cacgtgggtc actgttaaga atggatctgg agacatgata 60
82 tttgagggaa acagtggaaa ggagatccct gttctcaatg agctaccgt ccccatgggtg 120
83 gcccgctaca tccgcataaa cctcagtcct tggtttgata atgggagcat ctgcatgaga 180
84 atggagatcc tgggctgccc actgccagat cctaataatt attatcaccg ccggaacgag 240
85 atgaccacca ctgatgacct ggattttaag caccacaatt ataaggaaat gcgccagttg 300
86 atgaaagtgt tgaatgaaat gtgtcccaat atcaccagaa tttacaacat tggaaaaagc 360
87 caccagggcc tgaagctgta tgctgtggag atctcagatc accctgggga gcatgaagtc 420
88 ggtgagcccg agttccacta catcgcgggg gccacggca atgaggtgct gggccgggag 480
89 ctgctgctgc tgctggtgca gtctgtgtgt caggagtact tggcccgaa tgccgcgcatc 540
90 gtccacctgg tggaggagac gcgattcac gtctccctcc cctcaaccc cgatggctac 600
91 gagaaggcct acgaaggggg ctcgagctg ggaggctggt ccctgggacg ctggaccac 660
92 gatggaattg acatcaacaa caactttcct gatttaacaa cgctgctctg ggaggcagag 720
93 gatcgacaga atgtccccag gaaagttccc aatcactata ttgcaatccc tgagtggttt 780
94 ctgtcggaat atgccacggt ggctgccgag accagagcag tcatagcctg gatggaaaa 840
95 atcccttttg tgctgggagg caacctgcag ggcggcgagc tgggtgggtgc gtacccttac 900
96 gacctggtgc ggtccccctg gaagacgcag gaacacaccc ccacccccga cgaccacgtg 960
97 ttccgctggc tggcctactc ctatgcctcc acacaccgcc tcatgacaga cgcccgagg 1020
98 aggggtgtgc acacggagga cttccagaag gaggagggca ctgtcaatgg ggcctcctgg 1080
99 cacaccgtcg ctggaagtct gaacgatttc agctaccttc atacaaactg cttcgaactg 1140
100 tccatctacg tgggctgtga taaataccca catgagagcc agctgcccga ggagtgggag 1200
101 aataaccggg aatctctgat cgtgttcatt gagcaggttc atcgtggcat taaaggcttg 1260
102 gtgagagatt cacatggaaa aggaatccca aacgccatta tctccgtaga aggcattaac 1320
103 catgacatcc gaacagccaa cgatggggat tactggcgcc tctgaaccc tggagagtat 1380
104 gtggtcacag caaaggccga aggtttcact gcatccacca agaactgtat ggttggttat 1440
105 gacatggggg ccacaaggtg tgacttcaca cttagcaaaa ccaacatggc caggatccga 1500
106 gagatcatgg agaagtttgg gaagcagccc gtcagcctgc cagccaggcg gctgaagctg 1560
107 cgggggaggga agagacgaca gcgtgggtga 1590
110 <210> SEQ ID NO: 4
111 <211> LENGTH: 1404
112 <212> TYPE: DNA
113 <213> ORGANISM: Homo sapiens
115 <400> SEQUENCE: 4

```

RAW SEQUENCE LISTING

DATE: 11/30/2001

PATENT APPLICATION: US/09/888,615

TIME: 12:19:50

Input Set : A:\38602-us.app

Output Set: N:\CRF3\11212001\I888615.raw

```

116 atgtggcgat gtccactggg gctactgctg ttgctgccgc tggctggcca cttggctctg 60
117 ggtgccccagc agggctcgtg gcgccgggag ctagcaccgg gtctgcacct gcggggcatc 120
118 cgggacgcgg gaggcgggta ctgccaggag caggacctgt gctgccgcgg ccgtgccgac 180
119 gactgtgccc tgccctacct gggcgccatc tgttactgtg acctcttctg caaccgcacg 240
120 gtctccgaact getgccctga cttctgggac ttctgctcgg gcgtgccacc cccttttccc 300
121 ccgatccaag gatgtatgca tggaggtcgt atctatccag tcttgggaac gtactgggac 360
122 aactgtaacc gttgcacctg ccaggagaac aggcagtggc agtgtgacca agaaccatgc 420
123 ctggtggatc cagacatgat caaagccatc aaccagggca actatggctg gcaggctggg 480
124 aaccacagcg ccttctgggg catgacctg gatgagggca ttcgctaccg cctgggcacc 540
125 atccgcccat cttcctcggg catgaacatg catgaaattt atacagtgt gaacccaggg 600
126 gaggtgcttc ccacagcctt cgaggcctct gagaagtggc ccaacctgat tcatgagcct 660
127 cttgaccaag gcaactgtgc aggctcctgg gccttctcca cagcagctgt ggcacccgat 720
128 cgtgtctcaa tccattctct gggacacatg acgcctgtcc tgctgcccc gaacctgctg 780
129 tcttgtgaca cccaccagca gcagggtctg cgcggtgggc gtctcgatgg tgctggtgg 840
130 ttctgcgtc gccgaggggt ggtgtctgac cactgctacc ccttctcggg ccgtgaacga 900
131 gacgaggctg gccctgcgcc cccctgtatg atgcacagcc gagccatggg tcggggcaag 960
132 cgccaggcca ctgcccactg ccccaacagc tatgttaata acaatgacat ctaccaggtc 1020
133 actcctgtct accgcctcgg ctccaacgac aaggagatca tgaaggagct gatggagaat 1080
134 ggcctgtctc aagccctcat ggaggtgcat gaggacttct tctatacaa gggaggcatc 1140
135 tacagccaca cgccagtga ccttgggagg ccagagagat accgcgggca tgggaccac 1200
136 tcagtcaaga tcacaggatg gggagaggag acgctgccag atggaaggac gctcaaatac 1260
137 tggactgcgg ccaactcctg gggcccagcc tggggcgaga ggggccactt ccgcctcgtg 1320
138 cgcgcgctca atgagtgcga catcgagagc ttcgtgctgg gcgtctgggg ccgcgtgggc 1380
139 atggaggaca tgggtcatca ctga 1404

```

142 <210> SEQ ID NO: 5

143 <211> LENGTH: 10062

144 <212> TYPE: DNA

145 <213> ORGANISM: Homo sapiens

147 <220> FEATURE:

148 <221> NAME/KEY: modified_base

149 <222> LOCATION: (5673)

150 <223> OTHER INFORMATION: a, t, c, g, other or unknown

152 <400> SEQUENCE: 5

```

153 atgtgcgaga actgcgcaga cctggtggag gtgttaaagt aaatatcaga tgtagaagg 60
154 ggtgatggac tgcagctcag aaaggaacat actctcaaaa tatttactta catcaattcc 120
155 tggacacaga ggcaatgtct atgctgcttc aaggaatata agcatttgga gattttta 180
156 caagttagtg gtgcacttat taacttagtg attgcccaag ttcaagtgtc ccgggaccag 240
157 ctttgtaaac attgtactac cattaacata gattccacgt ggcaagatga gagtaatcaa 300
158 gcagaagaac cactgaatat agatagagag tgtaatgaag gaagtacaga aagacaaaaa 360
159 tcaatagaaa aaaaatcaaa ctctacaaga atttgtaatc tgactgagga ggaatcttca 420
160 aagagttctg atccttttag tttatggagt acagatgaga aggaaaaact cttactatgt 480
161 gtggcaaaaa tttttcaaat tcagtttccc ttatatactg cttacaagca taatactcac 540
162 cctactattg aggatataat aactcaagaa agtaacatat taggggcatt ctgtgatatg 600
163 aatgatgtag aagtaccatt gcatttgctt cgttatgtat gtttgttttg tgggaaaaat 660
164 ggcctttctc tcatgaagga ttgctttgaa tatggaactc ctgaaacttt gccatttctt 720
165 atagcacatg cgttttattac agttgtgtct aatattagaa tatggctaca tattcccgtc 780
166 gtcattgcagc acattatacc ttttaggacc tatgttatta ggtatttatg caagctctcg 840
167 gatcaggagt tacgacagag tgcagctcgt aacatggctg acttaatgtg gagcacagtc 900
168 aaagaacatc tggatacaac attatgcttt gataaagaaa gcctagatct tgcatttaag 960

```

RAW SEQUENCE LISTING

DATE: 11/30/2001

PATENT APPLICATION: US/09/888,615

TIME: 12:19:50

Input Set : A:\38602-us.app

Output Set: N:\CRF3\11212001\I888615.raw

```

169 tacttttatgt cacctactttt gactatgagg ttggctggat tgagtcagat aacaaatcaa 1020
170 ctccatacct tcaatgatgt gtgcaataat gaatcattag tatcggacac agaaacgtcc 1080
171 attgcaaaaag aacttgacaga ctggccttatt agcaacaatg tgggtggagca tatattttgga 1140
172 ccaaattttac atattgagat tatcaaacag tgccaagtga ttttgaattt tttggcagca 1200
173 gaagggcgac tgagtactca acatattgac tgtattttggg ctgcagcaca gttgaaacat 1260
174 tgtagtcggt atatacatga cttattttcct tcaactcatca agaattttgga tcccgtacca 1320
175 cttagacatc tacttaatct ggtctcagct cttgagccaa gtgttcatac tgaacagaca 1380
176 ctgtacttgg catccatggt aattaaagca ctgtggaata acgcactagc agctaaggct 1440
177 cagttatcta aacagagttc ttttgcatct ttattaaata ctaatattcc cattggaaat 1500
178 aagaaagagg aagaagagct tagaagaaca gctccatcac cttggtcacc tgcagctagt 1560
179 cctcaaagca gtgataatag cgatacacat caaagtggag gtagtgacat tgaaatggat 1620
180 gagcaactta ttaatagaac caaacatgtg caacaacgac tttcagacac agaggaatcc 1680
181 atgcagggaa gttctgacga aactgccaac agtgggtgaag atggaagcag tggtcctggt 1740
182 agcagtagtg ggcatagtga tggatctagc aatgagggtta attctagcca cgcaagccag 1800
183 tcagctggga gccctggcag tgaggtagac tcaagaagaca ttgcagatat tgaagccctc 1860
184 aaagaggaag atgaagacga tgatcatggt cataatcctc ccaaaagcag ttgtggtaca 1920
185 gatcttcgga atagaaagtt agagagtcaa gcaggcattt gcctggggga ctcccaaggc 1980
186 acgtcagaaa gaaatgggac aagcagcgga acaggaaaagg acctgggttt taacactgaa 2040
187 tcattgcatc cagtagataa tcgaatgcga atgctggatg cttgttcaca ctctgaagac 2100
188 ccagaacatg atatttcagg ggaatgaat gctactcata tagcacaagg gtctcaggag 2160
189 tcttgatata cacgaactgg ggaacttcctt ggggagacta ttgggaatga attatttaat 2220
190 tgtogacaat ttattggtcc acagcatcac caccaccacc accaccatca ccaccaccac 2280
191 gatgggcata tggttgatga tatgctaagt gcagatgatg tcagttgtag tagctcccag 2340
192 gttagtgcga aatcagaaaa aaatatggct gattttgatg gtgaagaatc tggatgtgaa 2400
193 gaggagctag ttcagattaa ttcacatgag gaactgacat ctcacctcca acaacatctt 2460
194 cccaatttag cttccattta ccatgaacat cttagtcaag gacctgtagt tcataaacat 2520
195 caattcaaca gtaatgctgt tacagacatt aatttgata atgtttgcaa gaaaggaaat 2580
196 actttgttgt gggatatagt ccaagatgaa gatgcagtta atctttctga aggattaata 2640
197 aatgaagcag agaaacttct ttgttcgtta gtatgttggg ttacagatag acaaattcga 2700
198 atgagattca ttgaagggtt ccttgaaaac ttgggaaaca acagatcagt agtaatttca 2760
199 cttogtcttc ttccaaaact atttggtact ttccagcagt ttgggagcag ttacgataca 2820
200 cactggataa caatgtgggc agaaaaagaa ctgaacatga tgaagctttt ctttgataat 2880
201 ttggtatact acattcaaac tgtgagagaa ggaagacaaa aacatgcact gtacagccat 2940
202 agtgcagaa ttcaagttcg tcttcaattc ttgacttgtg tattttcaac tctgggatca 3000
203 cctgatcatt tcaggtttaag tttagagcaa gttgacatct tatggcattg tttagtagaa 3060
204 gattctgaat gttatgatga tgcactccat tggtttttaa atcaagttcg aagtaaagat 3120
205 caacatgcta tgggtatgga aacctacaaa catcttttcc tggagaagat gccccagcta 3180
206 aaacctgaaa caattagcat gactggctta aacctgttcc agcatctctg taacttggct 3240
207 cgattggcta ccagtgctta tgatggttgt tcaaatctcg agctgtgtgg tatggacca 3300
208 ttttggggca ttgctttaag agcacaatct ggtgatgtca gtcgagcagc tatccagtat 3360
209 attaaactct attatattaa tggtaaaaca ggtttggaga aggagcaaga atttattagt 3420
210 aagtgcagtg agagtcttat gatagcttct agcagcttg aacaggaatc aactcaagt 3480
211 ctcatgggta tagaaagagg actccttatg ctgaagacac atctggaagc gtttaggaga 3540
212 aggtttgcat atcatctgag acagtggcaa attgaaggca ctggtattag tagtcatttg 3600
213 aaagcactga gtgacaaaca gtctctgccg ctaagggttg tatgccagcc agctggactt 3660
214 cctgacaaga tgactattga aatgtatcct agtgaccagg tagcagatct tagggctgaa 3720
215 gtaactcatt ggtatgaaaa ttacagaaa gaacaaataa atcaacaagc tcagcttcag 3780
216 gagtttggtc aaagcaaccg aaaaggagag tttcctggag gcctcatggg acctgtcagg 3840
217 atgatttcat ctggacacga gtttaacaaca gattatgatg aaaaagcact tcatgagctt 3900

```

RAW SEQUENCE LISTING

DATE: 11/30/2001

PATENT APPLICATION: US/09/888,615

TIME: 12:19:50

Input Set : A:\38602-us.app

Output Set: N:\CRF3\11212001\I888615.raw

```

218 ggtttttaagg atatgcagat ggtattttgta tctttgggtg caccaaggag agagcggaaa 3960
219 ggggaaggtg ttcagctgcc agcatcttgc ctcccacccc ctcagaagga caacattcca 4020
220 atgcttttgc ttttacaaga gcctcattta actactcttt ttgatttatt agagatgctt 4080
221 gcatcattta aaccaccctc aggaaaagtg gcagtggatg atagtgagag cttacgatgt 4140
222 gaagaacttc atcttcatgc agaaaatctg tctaggcggtg tctgggagct actgatgctt 4200
223 ctctctacat gtcttaatat gttgatggca ttccagaata tctcagatga gcagagtttt 4260
224 aaagctcagt ctgatcacag gtctagacat gaagtttcac attattcaat gtggctcttg 4320
225 gtgagttggg ctcatgtctg ttcttttagt aaatctagcc ttgctgatag cgatcattta 4380
226 caagattggc taaagaaatt gactctcctt attcctgaga ctgcagttcg tcatgaatca 4440
227 tgcagtggtc tctataagtt atccctgtca gggctggatg gaggagactc aatcaatcgt 4500
228 tcttttctgc tattggctgc ctcaacatta ttgaaatttc ttcctgatgc tcaagcactc 4560
229 aaacctatta ggatagatga ttatgaggaa gaaccaatat taaaaccagg atgtaaagag 4620
230 tatttttggg tgttatgcaa attagttgac aacatacata taaaggacgc tagtcagaca 4680
231 acgctcctcg acttagatgc cttggcaaga catttggtcg actgtattcg aagtagggag 4740
232 atccttgatc atcaggatgg taatgtagaa gatgatgggc ttacaggact cctaaggctt 4800
233 gcaacaagtg ttgttaaaca caaaccaccc tttaaatttt caagggaagg acaggaattt 4860
234 ttgagagata tcttcaatct cctgtttttg ttgccaaagt taaaggaccg acaacagcca 4920
235 aagtgcaaat cacattcttc aagagctgcc gcttacgatt tgtagtaga gatggtaaag 4980
236 gggctctgtg agaactacag gctaatacac aactgggtta tggcacaaca catgcagtc 5040
237 catgcacctt ataaatggga ttactggcct catgaagatg tccgtgctga atgtagattt 5100
238 gttggcctta ctaaccttgg agctacttgt tacttagctt ctactattca gcaactttat 5160
239 atgatacctg aggcaagaca ggctgtcttc actgccaaat attcagagga tatgaagcac 5220
240 aagaccactc ttctggagct tcagaaaatg ttacatatt taatggagag tgaatgcaaa 5280
241 gcatataatc ctagaccttt ctgtaaaaca tacaccatgg ataagcagcc tctgaatact 5340
242 ggggaacaga aagatatgac agagtttttt actgatctaa ttaccaaaat cgaagaaatg 5400
243 tctcccgaa ctaaaaaaac cgtcaaaagt ttatttggag gtgtaattac aaacaatgtt 5460
244 gtatccttgg attgtgaaca tgtagtcaa actgctgaag agttttatac tgtgaggtgc 5520
245 caagtggctg atatgaagaa catttatgaa tctcttgatg aagttactat aaaagacact 5580
246 ttggaaggtg ataacatgta tacttgttct caatgtggga agaaagtacg agctgaaaaa 5640
W--> 247 agggcatgtt ttaagaaatt gcctcgcaat tttagtttca atactatgag atacacattt 5700
248 aatatggtca cgatgatgaa agagaaagtg aatacacact ttctctccc attacgtttg 5760
249 gacatgacgc cctatacaga agattttctt atgggaaaga gtgagaggaa agaaggtttt 5820
250 aaagaagtca gtgatcattc aaaagactca gagagctatg aatatgactt gataggagtg 5880
251 actgttcaca caggaaacggc agatggtgga cactattata gctttatcag agatatagta 5940
252 aatccccatg cttataaaaa caataaatgg tatcttttta atgatgctga ggtaaaacct 6000
253 tttgattctg ctcaacttgc atctgaatgt tttggtggag agatgacgac caagacctat 6060
254 gattctgtta cagataaatt tatggacttc tcttttgaaa agacacacag tgcataatg 6120
255 ctgttttaca aacgcatgga accagaggaa gaaaatggca gagaatacaa atttgatgtt 6180
256 tgcgcagagt tactagagtg gatttggcat gataacatgc agtttcttca agacaaaaac 6240
257 atttttgaac atacatattt tggatttatg tggcaattgt gtagttgtat tcccagtaca 6300
258 ttaccagatc ctaaagctgt gtcttaaatg acagcaaagt taagcacttc ctttgtccta 6360
259 gagacattta ttcattctaa agaaaagccc acgatgcttc agtggattga actgttgacg 6420
260 aaacagttta ataatagtca ggcagcttgt gagtggtttt tagatcgtat ggctgatgac 6480
261 gactggtggc caatgcagat actaattaag tgccctaate aaattgtgag acagatgttt 6540
262 cagcgtttgt gtatccatgt gattcagagg ctgagacctg tgcagtctca tctctatttg 6600
263 cagccaggaa tggaagatgg gtcagatgat atggatacct cagtagaaga tattggtggt 6660
264 cgttcatgtg tcaactcgctt tgtgagaacc ctgttattaa ttatggaaca tgggtgaaaa 6720
265 cctcacagta aacatcttac agagtatttt gccttctctt acgaatttgc aaaaatgggt 6780
266 gaagaagaga gccaattttt gctttcattg caagctatat ctacaatggt acattttttac 6840

```

Use of n and / or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to ensure a corresponding explanation is present in the <220> to <223> fields of each sequence using n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/888,615

DATE: 11/30/2001

TIME: 12:19:51

Input Set : A:\38602-us.app

Output Set: N:\CRF3\11212001\I888615.raw

L:247 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5

L:2993 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:64

L:9727 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:150